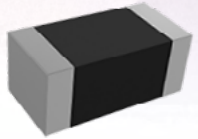


# Chip Temp. Sensing NTC Thermistor - SDNT Series

Operating Temp. : -40°C ~+125°C



## FEATURES

- SMD type suitable for high density mounting
- Series of B constant for various applications
- Excellent solder ability

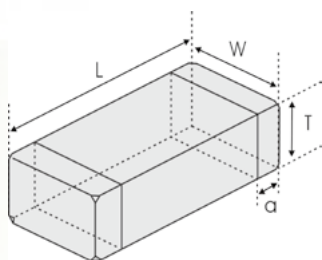
## APPLICATIONS

- Telecommunication equipments such as cellular phone, automobile phone, etc.
- Office automation such as printer, facsimile, word processor, etc.
- Battery, CPU temperature protection.

## PRODUCT IDENTIFICATION

<u>SDNT</u>	<u>1005</u>	<u>X</u>	<u>103</u>	<u>F</u>	<u>3380</u>	<u>F</u>	<u>T</u>	<u>F</u>																																																									
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## SHAPE AND DIMENSIONS



Unit: mm [inch]

Type	L	W	T	a
SDNT0603 [0201]	0.6±0.05 [.024±.002]	0.3±0.05 [.012±.002]	0.3±0.05 [.012±.002]	0.15±0.05 [.006±.002]
SDNT1005 [0402]	1.0±0.15 [.039±.006]	0.5±0.15 [.020±.006]	0.5±0.15 [.020±.006]	0.25±0.1 [.010±.004]
SDNT1608 [0603]	1.6±0.15 [.063±.006]	0.8±0.15 [.031±.006]	0.8±0.15 [.031±.006]	0.3±0.2 [.012±.008]
SDNT2012 [0805]	2.0±0.2 [.079±.008]	1.25±0.2 [.049±.008]	0.85±0.2 [.033±.008]	0.5±0.3 [.020±.012]

## SPECIFICATION

### SDNT0603 TYPE

Part Number	Resistance at 25°C	B Constant (25-50°C)	Max. Permissive Operating Current (25°C)	Thermal Time Constant	Dissipation Factor	Rated Electric Power
Units	kΩ	K	mA	sec	mW/°C	mW
Symbol	R25	B25/50	I <sub>max</sub>	t	C	P
SDNT0603C103 □ 3380 ⊙ TF	10	3380	0.31	<3 sec.	1.0	100
SDNT0603C223 □ 3380 ⊙ TF	22	3380	0.21			
SDNT0603C473 □ 4050 ⊙ TF	47	4050	0.14			
SDNT0603C683 □ 4250 ⊙ TF	68	4250	0.12			
SDNT0603C104 □ 4250 ⊙ TF	100	4250	0.10			

### SDNT1005 TYPE

Part Number	Resistance at 25°C	B Constant (25-50°C)	Max. Permissive Operating Current (25°C)	Thermal Time Constant	Dissipation Factor	Rated Electric Power
Units	kΩ	K	mA	sec	mW/°C	mW
Symbol	R25	B25/50	I <sub>max</sub>	t	C	P
SDNT1005X682 □ 3950 ⊙ TF	6.8	3950	0.38	<3 sec.	1.0	100
SDNT1005X103 □ 3380 ⊙ TF	10	3380	0.31			
SDNT1005X103 □ 3950 ⊙ TF	10	3950	0.33			
SDNT1005X103 □ 4050 ⊙ TF	10	4050	0.33			
SDNT1005X153 □ 3450 ⊙ TF	15	3450	0.25			
SDNT1005X223 □ 3950 ⊙ TF	22	3950	0.23			
SDNT1005X303 □ 3950 ⊙ TF	30	3950	0.15			
SDNT1005X333 □ 3950 ⊙ TF	33	3950	0.15			
SDNT1005X473 □ 4050 ⊙ TF	47	4050	0.12			
SDNT1005X473 □ 4100 ⊙ TF	47	4100	0.12			
SDNT1005X503 □ 4100 ⊙ TF	50	4100	0.12			
SDNT1005X683 □ 4150 ⊙ TF	68	4150	0.11			
SDNT1005X104 □ 3950 ⊙ TF	100	3950	0.1			
SDNT1005X104 □ 4150 ⊙ TF	100	4150	0.1			
SDNT1005X104 □ 4250 ⊙ TF	100	4250	0.1			
SDNT1005X154 □ 4150 ⊙ TF	150	4150	0.08			
SDNT1005X224 □ 4250 ⊙ TF	220	4250	0.06			

### SDNT1608 TYPE

Part Number	Resistance at 25°C	B Constant (25-50°C)	Max. Permissive Operating Current (25°C)	Thermal Time Constant	Dissipation Factor	Rated Electric Power
Units	kΩ	K	mA	sec	mW/°C	mW
Symbol	R25	B25/50	I <sub>max</sub>	t	C	P
SDNT1608X222 □ 3450 ⊙ TF	2.2	3450	0.67	<5 sec.	1.0	100
SDNT1608X472 □ 3950 ⊙ TF	4.7	3950	0.46			
SDNT1608X502 □ 3950 ⊙ TF	5	3950	0.44			
SDNT1608X103 □ 3380 ⊙ TF	10	3380	0.31			
SDNT1608X103 □ 3450 ⊙ TF	10	3450	0.31			
SDNT1608X103 □ 3950 ⊙ TF	10	3950	0.33			
SDNT1608X153 □ 3950 ⊙ TF	15	3950	0.25			
SDNT1608X223 □ 3950 ⊙ TF	22	3950	0.21			
SDNT1608X223 □ 4050 ⊙ TF	22	4050	0.21			
SDNT1608X333 □ 4050 ⊙ TF	33	4050	0.17			
SDNT1608X473 □ 4050 ⊙ TF	47	4050	0.14			

## SPECIFICATION

### SDNT1608 TYPE

Part Number	Resistance at 25°C	B Constant (25-50°C )	Max. Permissive Operating Current (25°C )	Thermal Time Constant	Dissipation Factor	Rated Electric Power
Units	kΩ	K	mA	sec	mW/°C	mW
Symbol	R25	B25/50	I <sub>max</sub>	t	C	P
SDNT1608X473 □ 4150 ◎ TF	47	4150	0.14	<5 sec.	1.0	100
SDNT1608X503 □ 4150 ◎ TF	50	4150	0.13			
SDNT1608X683 □ 4150 ◎ TF	68	4150	0.12			
SDNT1608X104 □ 3950 ◎ TF	100	3950	0.1			
SDNT1608X104 □ 4250 ◎ TF	100	4250	0.1			
SDNT1608X124 □ 4250 ◎ TF	120	4250	0.1			
SDNT1608X154 □ 4250 ◎ TF	150	4250	0.08			
SDNT1608X224 □ 4300 ◎ TF	220	4300	0.06			

### SDNT2012 TYPE

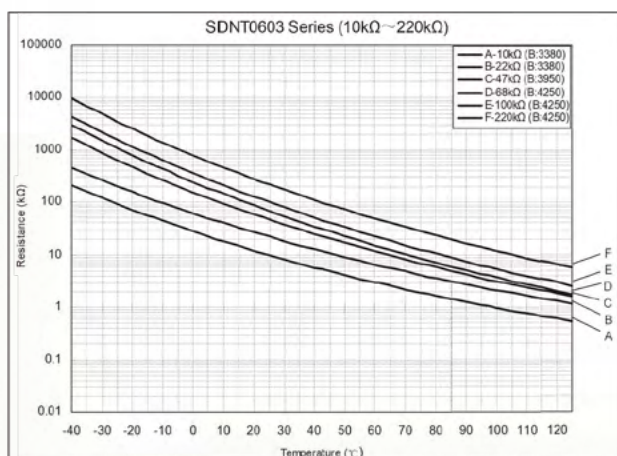
Part Number	Resistance at 25°C	B Constant (25-50°C )	Max. Permissive Operating Current (25°C )	Thermal Time Constant	Dissipation Factor	Rated Electric Power
Units	kΩ	K	mA	sec	mW/°C	mW
Symbol	R25	B25/50	I <sub>max</sub>	t	C	P
SDNT2012X472 □ 3950 ◎ TF	4.7	3950	0.65	<5 sec.	2.0	200
SDNT2012X502 □ 3950 ◎ TF	5	3950	0.6			
SDNT2012X103 □ 3450 ◎ TF	10	3450	0.4			
SDNT2012X103 □ 3950 ◎ TF	10	3950	0.44			
SDNT2012X223 □ 4050 ◎ TF	22	4050	0.31			
SDNT2012X333 □ 4050 ◎ TF	33	4050	0.24			
SDNT2012X473 □ 4050 ◎ TF	47	4050	0.2			
SDNT2012X473 □ 4150 ◎ TF	47	4150	0.2			
SDNT2012X503 □ 4150 ◎ TF	50	4150	0.18			
SDNT2012X104 □ 3950 ◎ TF	100	3950	0.14			
SDNT2012X104 □ 4250 ◎ TF	100	4250	0.14			
SDNT2012X154 □ 4250 ◎ TF	150	4250	0.11			
SDNT2012X224 □ 4300 ◎ TF	220	4300	0.08			

※ □ : Please specify the resistance tolerance code (F=±1%, H=±3%, J=±5%, K=±10%).

※ ◎ : Please specify the B value tolerance code (F=±1%, H=±3%).

And products with other electrical characteristics can be provided upon customer's request. Please contact your local sales.

## TYPICAL ELECTRICAL CHARACTERISTICS





# TYPICAL ELECTRICAL CHARACTERISTICS

